Revision 3

#91137 Store at -20C

Pannexin-1 (D9M1C) Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R	Endogenous	45-55, 19	Rabbit IgG	#Q96RD7	24145

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

Pannexin-1 (D9M1C) Rabbit mAb recognizes endogenous levels of total pannexin-1 protein. This antibody detects an amino-terminal pannexin-1 fragment produced by caspase cleavage.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human pannexin-1 protein.

Background

The pannexin family (pannexin-1, -2, and -3; PANX1-3) of gap junction proteins has homology to the invertebrate innexins and display distinct expression patterns (1). Pannexin-1 is widely expressed, with highest expression in the heart, brain, skeletal muscle, testis, and ovary (1,2). Pannexin-2 is predominately expressed in the brain (1,2) and pannexin-3 is found within the skin and connective tissues (1,3). Connexin family gap junction proteins form hemichannels that align adjacent cells, creating functional intercellular channels that are permeable to ions and small molecules. In contrast, pannexin proteins may not function as gap junction proteins since pannexins on adjacent cells may not align to form complete channels (3). These pannexin “hemichannels” may play a role in inflammation, apoptosis, and neuronal signaling by allowing permeability of ions, ATP, and potentially other small molecules into the extracellular space (4-6). Pannexin-1 can be activated by effector caspases (caspase-3 and -7), which leads to release of signal molecules that promote phagocytosis of apoptotic cells (7).

Background References

1. Baranova, A. et al. (2004) *Genomics* 83, 706-16.
2. Bruzzone, R. et al. (2003) *Proc Natl Acad Sci U S A* 100, 13644-9.
3. Penuela, S. et al. (2007) *J Cell Sci* 120, 3772-83.
4. Qu, Y. et al. (2011) *J Immunol* 186, 6553-61.
5. Silverman, W.R. et al. (2009) *J Biol Chem* 284, 18143-51.
6. MacVicar, B.A. and Thompson, R.J. (2010) *Trends Neurosci* 33, 93-102.
7. Chekeni, F.B. et al. (2010) *Nature* 467, 863-7.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

Trademarks and Patents

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.